

Northeastern Wisconsin Forest Health Update

Wisconsin DNR – Division of Forestry

November 1, 2016

Topics covered this month:

Insects:

Ash bark beetle
Beech blight aphids
Box elder bugs
Brown marmorated stink bug
EAB
Earwigs
Gypsy moth
Invasive insects
Ladybugs
Milkweed bugs
Millipedes
Willow flea weevil

Other:

Mark Guthmiller has retired

Diseases:

Armillaria root disease
Oak wilt 2nd location in Arbor Vitae Twp.

Of Historical Interest

25 years ago - 1991 –
 Spruce needle rust
 Giant elm sawfly
50 years ago - 1966 –
 Introduced pine sawfly
 Dutch elm disease

Insects

Ash bark beetle – emerald ash borer isn't the only insect attacking our ash. Recent samples and reports of ash bark beetle have come in from Brown, Kewaunee, and Waupaca Counties. Native ash bark beetles create small round holes, approximately 1mm in diameter. We have 3 different bark beetles that can attack ash. Horizontal galleries under the bark are created by females as they lay their eggs. The eggs hatch and the larvae chew their own smaller galleries as they feed. This kind of damage can kill branches or sometimes whole trees, but this insect usually only impacts trees under stress.



Ash bark beetle galleries have horizontal galleries with tiny larval galleries radiating out from there. Photo by Steve Kaufman.

Beech blight aphids – numerous reports of beech blight aphids have come in since my last pest



Beech blight aphids on American beech.

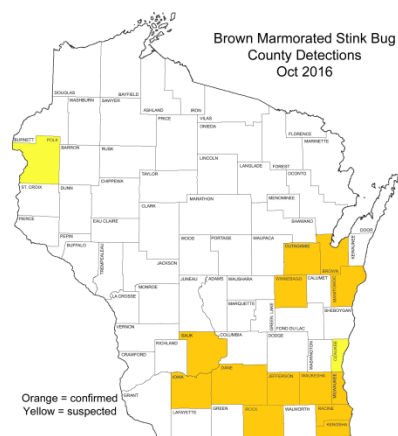
update. These aphids will often completely cover a single branch, which makes that branch really stand out. Several times this year I've seen thick sooty mold growing on the litter layer of the forest floor below high populations of beech blight aphid. This year I also noticed several infestations that bees were being attracted to, where they could collect the sweet sticky honeydew. Beech blight aphids seem to be fairly common this year throughout Door County, and in scattered areas of Kewaunee and Oconto Counties. These insects are not associated with beech bark disease.

Box elder bugs – one of 3 insects I highlight in this newsletter that are congregating on/in houses this fall (others are brown marmorated stink bug, and ladybugs). Populations of box elder bugs were moderate to high in a number of northeastern Wisconsin counties this year, although they weren't noticeable until we had some cool temps and a frost, which prompted them to seek out places to overwinter ... like your house or garage. Reports have come in from Brown, Door, Kewaunee, Shawano, and Oconto Counties. Box elder bugs don't bite, and instead have piercing sucking mouthparts that they use to feed on female flowers, seeds, and twigs of box elder and other maples, and occasionally ash. The problem comes when we get a cold period, followed by some warm sunny days, which causes the bugs to congregate. The techniques used to repel ladybugs from your home will work to repel box elder bugs as well.



Box elder bug.

Brown marmorated stink bugs – this large stinkbug is a relatively new invasive species to Wisconsin but in areas where it is found it's a pest because it will congregate on/in your houses in the fall. Other insects that will congregate in/on your house in the fall are also highlighted in this newsletter, including box elder bugs and ladybugs. The map at right shows where brown marmorated stink bug has been reported to UW Extension. Although several northeastern Wisconsin Counties have reports, I myself have not gotten any reports of this insect. This insect is an agricultural pest native to eastern Asia. It can feed on a number of fruits and vegetables, as well as many other plants. Check out this [link](#) from Michigan State University for more information and photos of brown marmorated stink bug.



Counties with at least one report of brown marmorated stink bug.

EAB new finds in WI – since my last pest update emerald ash borer has been identified in the following areas around the state:

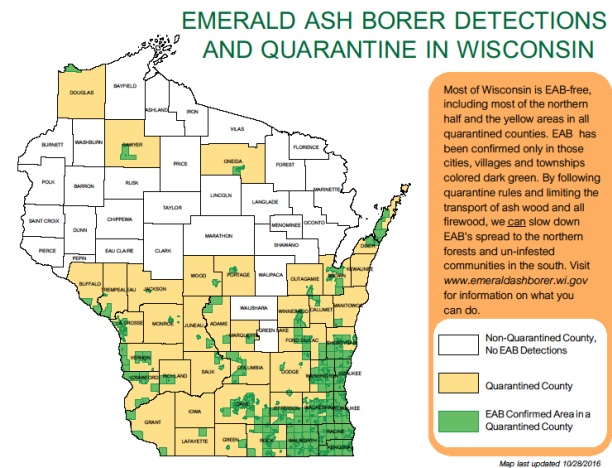
New County Quarantines:

- Sawyer County – Town of Radisson

New finds in Counties already Quarantined:

- Crawford County – Town of Scott
- Dane County – Towns of Christiana and Springdale, Villages of Cottage Grove and Mount Horeb
- Door County – Towns of Egg Harbor and Sturgeon Bay
- Juneau County – City of Mauston
- Manitowoc County – Town of Schleswig**
- Milwaukee County – Village of Shorewood
- Oneida County – Town of Crescent
- Racine County – Villages of Sturtevant and Union Grove
- Rock County – Town of Fulton

**Manitowoc County was previously quarantined but this is the first find of EAB within the county.



EAB other news – researchers at Wright State University in Ohio have found in a lab setting that EAB can attack Manzanilla olive trees. This is strictly in a lab setting. So far there has been no EAB found in olive trees in the field, and it's not known if EAB will actually be attracted to olives in the field, but it's noteworthy that EAB can develop to maturity in Manzanilla olives. For those of you who enjoy olives, Manzanilla olives are your green table olives. Why olive and why worry you might ask? Ash, which is EAB's primary host, is in the olive family (Oleaceae), and we do grow olives in a number of western states. Here's a link to the [article](#) if you're interested in more info.

EAB GovDelivery sign up – EAB continues to be found in more and more locations. To ensure you are notified of any new finds that could affect forest management, you can sign up for email notification through Gov Delivery. You will hear immediately when EAB has been found in a new county. You will also get a listing of subsequent finds of EAB in new townships or municipalities every 2 weeks. Sign up for this notification by going to <http://emeraldashborer.wi.gov> and select "subscribe to get email updates" in the center of the home page. After entering your email address, you will need to select the topic(s) on which you want to get email updates from the list that DATCP maintains. EAB is towards the bottom of the list.

Earwigs - populations of earwigs are higher this year than in past years, although high populations do seem to be fairly localized. Earwigs feed on flowers and foliage of herbaceous plants but they are also scavengers, eating decaying plant material. If you have mulched flowerbeds around your house you may be providing good habitat for earwigs. The myth about earwigs crawling in people's ears then burrowing into their brains to drive them mad is truly just

a myth. And although I'm sure you're not looking for a reason to like earwigs they are an insect that takes very good care of their young, compared to many insects that simply lay their eggs and leave them to their own defenses. UW Extension has a nice document on [earwigs and their control](#) and DNR has a document on [keeping earwigs out of your well](#).

Gypsy moth – spray program info is updated for [2016](#) and includes timelines and requirements for participating in the gypsy moth cost share program. Counties must have a designated gypsy moth program coordinator to participate. Some upcoming deadlines include Nov 4 the county coordinators should provide the DNR suppression program with an estimate of total acres proposed for treatment, and Dec 2 the applications and digitized maps are due. More deadlines can be found [online](#). If a county chooses not to participate, or doesn't qualify, homeowners and landowners can organize an aerial spray for themselves, or do some control just on their own properties. More info on gypsy moth and control options can be found [here](#).

Oiling egg masses - homeowners can be thinking about oiling egg masses at this time of year. It's easiest to see the egg masses after the leaves have fallen from the trees. Waiting until the leaves have fallen also allows any natural enemies to emerge from the egg mass before you oil it. Oiled egg masses remain on the tree but the eggs have suffocated and caterpillars will not emerge from them next year. If you prefer to remove egg masses from trees, be sure you collect the eggs and dispose of them. If you just scrape them onto the ground they can still hatch, and they'll be protected by snow all winter.



Gypsy moth egg mass. Tiny holes in the upper half show where *Ooencyrtus* (a parasitic wasp) has emerged.

Invasive insects – do you ever despair over the number of exotic invasive insects we have in North America and wonder if any of our insects become invasive in other countries? A recent paper about Red Turpentine Beetle becoming invasive in China highlights just one of these situations. Check out this [paper](#) for some info on just how destructive red turpentine beetle is in pines in China since it arrived in the early 1980's.

Ladybugs – although the numbers of multicolored Asian ladybeetles aren't super high, these exotic ladybugs congregate on your houses at the same time as the box elder bugs and brown marmorated stink bugs do. If you're having problems with them invading your house you can try to "build them out" or you could consider spraying the exterior to keep them out (which will repel all insects for a time), although it may be a bit late for it to do much good this year. UW Extension has a [document](#) that gives suggestions for keeping ladybugs out of your home. When you get calls about ladybugs or box elder bugs inside the home you can recommend vacuuming the critters up, and always avoid squishing, since squishing them will stain whatever they are squished on. Be sure to empty out any vacuum bags that have ladybugs in them as the ladybugs will start to smell bad after they die in the bag.



Multicolored Asian ladybeetles.

Contrary to what you might hear on social media or from folks who call or stop in ... multicolored Asian ladybeetles appear to have been introduced in the southern states many decades ago, and since then the beetles have been expanding their range and are found in many states now. It's also common for me to hear of folks mixing up the Multicolored Asian Ladybeetles with Japanese Beetles ... they're 2 different critters. And, finally, Multicolored Asian ladybeetles are indeed a ladybug. Both exotic and native ladybugs feed on aphids and scales which means that they're beneficial, but it's only the exotic ones that try to spend the winter in your house or garage.

Milkweed bugs – these insects are often mistaken for box elder bugs ... both were plentiful this fall. As a general rule, box elder bugs will not be found on milkweeds, so if you see these kinds of bugs on milkweed it is probably milkweed bug. Additionally, milkweed bugs are a little more orange, whereas box elder bugs are a little more reddish, and they have a different pattern of black on them, but it can be hard to distinguish the two unless you have both together for comparison. Milkweed bugs suck the sap of milkweed, while box elder bugs suck the sap from box elder seeds and twigs, and probably the more important difference is that box elder bugs will congregate on houses and buildings, while milkweed bugs will not.



Milkweed bugs on a milkweed pod. Adults towards top of photo, nymphs at bottom.

Millipedes – because of the frequent rains this fall I've been getting numerous reports/complaints of millipedes entering homes, basements and garages. Millipedes are also known as 1000-legged-worms and although millipedes are not technically an insect (which have only 6 legs) most people lump them in the "bug" category. Millipedes are considered a good bug because they eat decomposing organic matter such as leaf material, wood chips, rotting firewood, etc. But, millipedes do not like saturated soils so when it's wet for an extended time period they enter your homes looking for something a bit drier, but not too dry, which is why basements and garages can be favorite spots. They do not bite or spread disease. Control can be difficult but removing decaying leaves from immediately around your house can help as well as sealing and caulking cracks and crevices where they can enter your home.

Willow flea weevil – for the 3rd year in a row, damage from willow flea weevil was noted in Brown, Calumet, Marinette, Shawano, and Oconto Counties. Willows turned brown in early fall due to the leafmining and feeding damage from larvae and adults. Damage was severe enough that the trees appeared brown and "dried up" from a distance, although they were not dead.



Willow flea weevil damage from larvae which are leafminers.

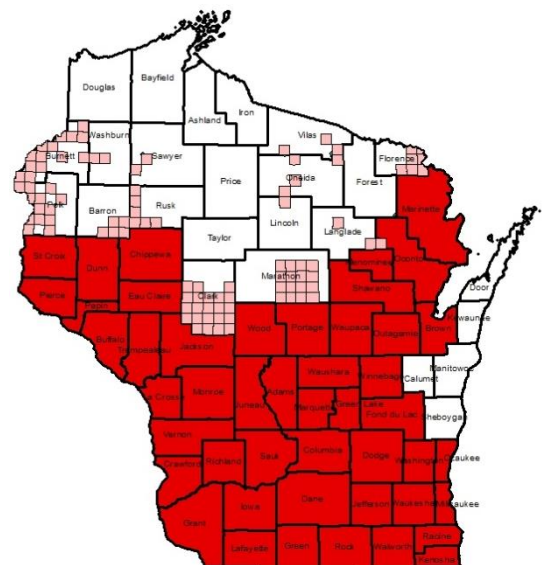
Diseases

Armillaria root disease in understory red pine – young red pine were being killed by armillaria root disease at a site in Marinette County. These young red pine were growing under a red pine overstory and were severely impacted by diplodia this year, which is probably what weakened them enough for armillaria to attack and kill them. White fungal material under the bark near the root collar is a key sign of armillaria. The overstory red pine have at least 2 more thinnings before final rotation, so these understory red pine were not going to be the next crop ... good news since they were being hit hard by both armillaria and diplodia.



Armillaria fungal material under the bark of a young red pine.

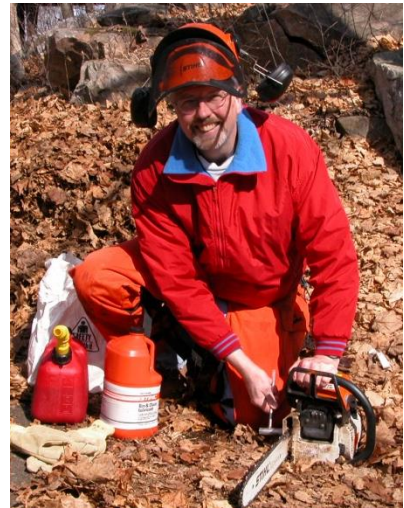
Oak wilt 2nd location in Town of Arbor Vitae – in my last pest update I reported that oak wilt had been identified for the first time in the Town of Arbor Vitae (Vilas County). At that location several oaks had been pruned during the high risk time period for overland transmission of oak wilt (April 15 – July 15), and the trees had been climbed using climbing spikes. Both pruning and use of climbing spikes, when done during the high risk period, can attract the insects that can spread oak wilt. Shortly after the first find was identified to the west of Woodruff, a second location was identified north of Woodruff. This second site had also been pruned this spring during the high risk period for overland transmission of oak wilt.



Pink squares indicate oak wilt has been found in that township. Red counties have a general distribution of oak wilt throughout the county.

Other/Misc.

Mark Guthmiller has retired – Mark Guthmiller, WI DNR Forest Health Specialist in Southern District located in Fitchburg, retired at the end of October. Mark has been with the Forest Health team for 26 years and will be greatly missed. I always learned something new when I was in the field with Mark who was exemplary at taking the time to look beyond the obvious answer and ferret out something new that others hadn't noticed.



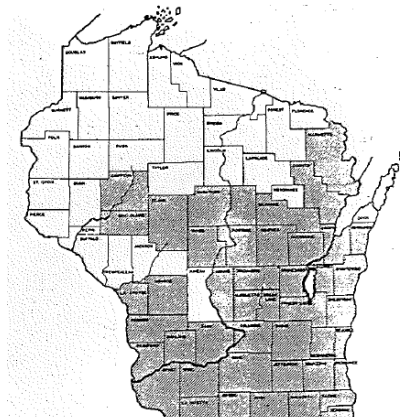
Of Historical Interest

25 years ago, in 1991 –

- **Spruce Needle Rust** - *Chrysomyxa* sp. Moderate to heavy needle loss was observed on Colorado blue spruce and occasionally white spruce in Oneida, Vilas, Sawyer, and Price counties.
- **Giant Elm Sawfly** - *Cimbex americana* Leach. This large late-season sawfly caused heavy defoliation to ornamental willows in Shawano and Taylor counties.

50 years ago, in 1966 -

- **Introduced Pine Sawfly** - *Diprion similis* (Hartig) Spring populations were generally low in all areas, Later in the season larvae severely defoliated white pine windbreaks and isolated trees, along roadsides and in the open, at scattered locations from central Jackson County, near Hixton, northward into Barron, Polk and Burnett Counties. White pine windbreaks in Section 17, T38N, R11E, near Three Lakes (Oneida County) were also severely defoliated. Less discernible defoliation was observed in Buffalo and Clark Counties.
- **Dutch elm disease** - *Ceratocystis ulmi* (Buisman) Moreau. Dutch elm disease has been reported in 44 of Wisconsin's 72 counties (see map below). New counties reported in 1966 were Chippewa, Eau Claire, Oconto, Shawano and Vernon.



Counties with Dutch elm disease in 1966.

Contact Us

Forest Health Staff - contact info for each Forest Health Specialist can be found our webpage at <http://dnr.wi.gov/topic/ForestHealth/staff.html>

Vacancy area coverage:

Oneida, Vilas, Forest, Florence Co's –

Linda Williams

Lincoln, Langlade Co's – Mike Hillstrom

Price, Taylor Co's – Todd Lanigan

Iron County – Paul Cigan

Report EAB:

by phone 1-800-462-2803

by email

DATCPEmeraldAshBorer@wisconsin.gov

visit the website

<http://emeraldashborer.wi.gov/>

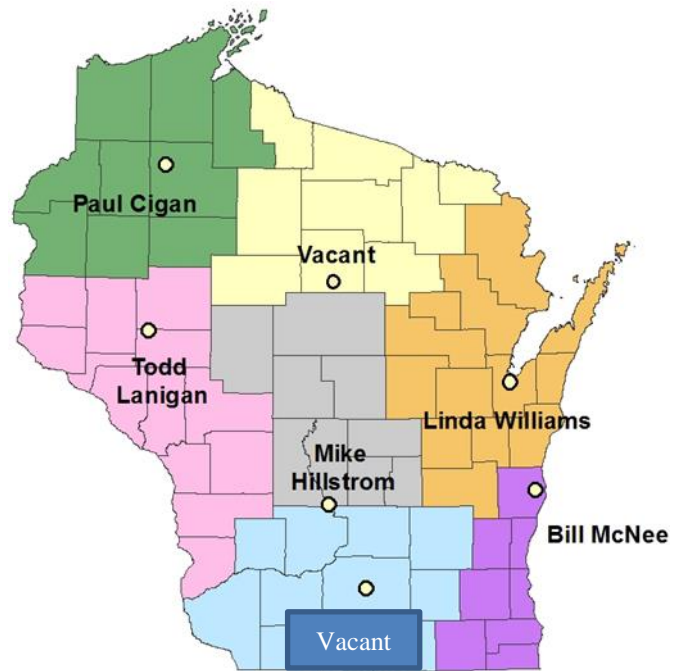
Report Gypsy Moth:

by phone at 1-800-642-6684

by email

dnrfrgypsymoth@wisconsin.gov

visit the website <http://www.gypsymoth.wi.gov/>



Northeast Region Pest Update produced by:

Linda Williams

Forest Health Specialist

Wisconsin Department of Natural Resources - Northeast Region

Linda.Williams@wi.gov

<http://dnr.wi.gov/topic/ForestHealth/>

Note: This pest update covers forest health issues occurring in Northeastern Wisconsin. This informal newsletter is created to provide up-to-date information to foresters, landowners, and others on forest health issues. If you have insect or disease issues to report in areas other than northeastern Wisconsin please report them to your local extension agent, state entomologist or pathologist, or area forest pest specialist.

Pesticide use: Pesticide recommendations contained in this newsletter are provided only as a guide. You, the applicator, are responsible for using pesticides according to the manufacturer's current label directions. Read and follow label directions and be aware of any state or local laws regarding pesticide use.